

Grilon TSC-30/4 LF 15 black 9832

PA666-(CF+Z)45

EMS-GRIVORY | a unit of EMS-CHEMIE AG

Product Texts

Product designation according to ISO 1874:

PA 66+PA 6, MHRS, 14-220 N, CF30+Z15

Mechanical properties	dry / cond	Unit	Test Standard
Tensile Modulus	23000 / 16000	MPa	ISO 527-1/-2
Stress at break	230 / 170	MPa	ISO 527-1/-2
Strain at break	2.5 / 4.5	%	ISO 527-1/-2
Charpy impact strength (+23°C)	45 / 60	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	45 / 45	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	10 / 13	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	7 / 7	kJ/m ²	ISO 179/1eA

Mechanical properties (TPE)	dry / cond	Unit	Test Standard
Ball indentation hardness	210 / 120	MPa	ISO 2039-1

Thermal properties	dry / cond	Unit	Test Standard
Melting temperature (10°C/min)	260 / -	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	235 / -	°C	ISO 75-1/-2
Temp. of deflection under load (8.00 MPa)	130 / -	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	10 / -	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	80 / -	E-6/K	ISO 11359-1/-2
Burning Behav. at thickness h	HB / -	class	IEC 60695-11-10
Thickness tested	0.8 / -	mm	IEC 60695-11-10
Max. usage temperature (long term)	90 - 120	°C	ISO 2578
Max. usage temperature (short term)	200	°C	EMS

Electrical properties	dry / cond	Unit	Test Standard
Volume resistivity	1000 / 1000	Ohm*m	IEC 60093
Surface resistivity	- / 1000	Ohm	IEC 60093

Other properties	dry / cond	Unit	Test Standard
Water absorption	5 / -	%	Sim. to ISO 62
Humidity absorption	1.5 / -	%	Sim. to ISO 62
Density	1400 / -	kg/m ³	ISO 1183

Rheo/Phys properties	dry / cond	Unit	Test Standard
Molding shrinkage (parallel)	0.1 / -	%	ISO 294-4, 2577
Molding shrinkage (normal)	0.1 / -	%	ISO 294-4, 2577

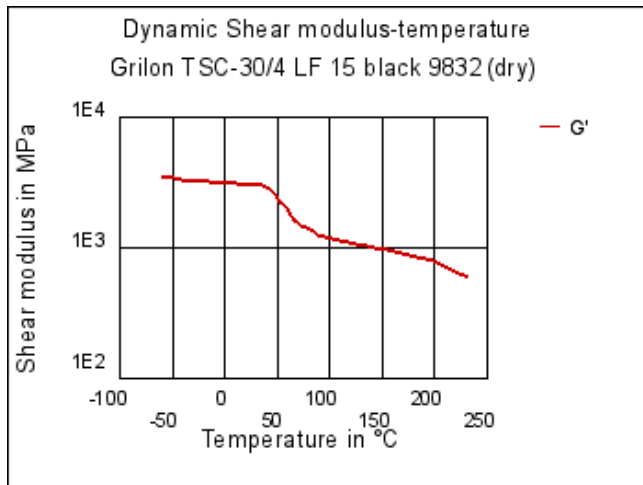
Diagrams

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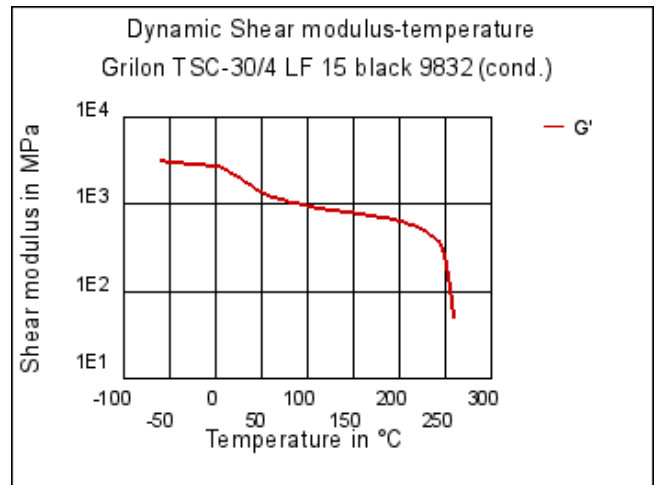
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Dynamic Shear modulus-temperature



Dynamic Shear modulus-temperature



Characteristics

Processing

Injection Molding

Delivery form

Granules

Special Characteristics

Anti-static

Regional Availability

North America, Europe, Asia Pacific, South and Central America, Near East/Africa

Product Attributes

Improved friction & wear properties

Automotive

Automotive electr. and electronics, lighting, Powertrain and Chassis

Electricals & Electronics

Electrical appliances, Electrical equipment

Industry & Consumer goods

Mechanical Engineering, Power transmission, Sports & Leisure, Tools & Accessories

Chemical Media Resistance

Acids

- 😊 Acetic Acid (5% by mass) (23°C)
- 😊 Citric Acid solution (10% by mass) (23°C)
- 😊 Lactic Acid (10% by mass) (23°C)
- 🚫 Hydrochloric Acid (36% by mass) (23°C)
- 🚫 Nitric Acid (40% by mass) (23°C)
- 🚫 Sulfuric Acid (38% by mass) (23°C)
- 🚫 Sulfuric Acid (5% by mass) (23°C)
- 🚫 Chromic Acid solution (40% by mass) (23°C)

Bases




- 😊 Sodium Hydroxide solution (35% by mass) (23°C)
- 😊 Sodium Hydroxide solution (1% by mass) (23°C)
- 😊 Ammonium Hydroxide solution (10% by mass) (23°C)

Alcohols




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-  Isopropyl alcohol (23°C)
-  Methanol (23°C)
-  Ethanol (23°C)


Hydrocarbons

-  n-Hexane (23°C)
-  Toluene (23°C)
-  iso-Octane (23°C)





Ketones

-  Acetone (23°C)










Ethers

-  Diethyl ether (23°C)






Mineral oils

-  SAE 10W40 multigrade motor oil (23°C)
-  SAE 10W40 multigrade motor oil (130°C)
-  SAE 80/90 hypoid-gear oil (130°C)
-  Insulating Oil (23°C)










Standard Fuels

-  ISO 1817 Liquid 1 (60°C)
-  ISO 1817 Liquid 2 (60°C)
-  ISO 1817 Liquid 3 (60°C)
-  ISO 1817 Liquid 4 (60°C)
-  Standard fuel without alcohol (pref. ISO 1817 Liquid C) (23°C)
-  Standard fuel with alcohol (pref. ISO 1817 Liquid 4) (23°C)
-  Diesel fuel (pref. ISO 1817 Liquid F) (23°C)
-  Diesel fuel (pref. ISO 1817 Liquid F) (90°C)
-  Diesel fuel (pref. ISO 1817 Liquid F) (>90°C)

Salt solutions

-  Sodium Chloride solution (10% by mass) (23°C)
-  Sodium Hypochlorite solution (10% by mass) (23°C)
-  Sodium Carbonate solution (20% by mass) (23°C)
-  Sodium Carbonate solution (2% by mass) (23°C)
-  Zinc Chloride solution (50% by mass) (23°C)

Other

-  Ethyl Acetate (23°C)
-  Hydrogen peroxide (23°C)
-  DOT No. 4 Brake fluid (130°C)
-  Ethylene Glycol (50% by mass) in water (108°C)
-  1% nonylphenoxy-polyethyleneoxy ethanol in water (23°C)
-  50% Oleic acid + 50% Olive Oil (23°C)
-  Water (23°C)
-  Deionized water (90°C)
-  Phenol solution (5% by mass) (23°C)